

2023 MISSOURI DIABETES REPORT



MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES



*Report to the General Assembly on diabetes-related efforts in the Missouri
HealthNet Division and the Missouri Department of Health and Senior
Services RSMo 191.990*

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Part 1 – The Burden of Diabetes in Missouri

Diabetes Prevalence in Missouri

Estimates show that over 537,000 Missouri residents, age 18 or older, had doctor-diagnosed diabetes in 2021, with a prevalence of 11.2% (Table 1). The diabetes prevalence in Missouri increased with age, as the percentage of diagnosed adults age 45 to 64 was nearly 5 times greater, compared to adults age 25 to 44. The data show there was a higher prevalence among males compared to females. Prevalence among adults living in households with a combined income of \$25,000 or less were nearly twice that of those living in a household with a combined income greater than \$50,000. Additionally, diabetes was less prevalent among Missourians who pursued education beyond high school and was significantly lower than those who did not finish high school¹. The demographic data shown in Table 1 is from individuals formally diagnosed with diabetes. The 2017-March 2020 National Health and Nutrition Examination Survey estimated 3.4% of adults in the United States have undiagnosed diabetes². Assuming the same prevalence in Missouri, likely more than 160,000 additional diabetes cases are unaccounted for in the current data.

Table 1. Prevalence of Diabetes among Adults age 18 or older, Missouri, 2021

	Number*	Percent (95% CI**)		Number*	Percent (95% CI**)
Overall	699,349	14.6	Household Income (\$)		
Diagnosed	537,348	11.2 (10.4-12.0)	≤25,000	168,030	15.8 (12.9-18.8)
Undiagnosed [#]	162,001	3.4 (2.7-4.2)	25,000-34,999	76,268	16.5 (12.9-20.0)
Age (years)			35,000-49,999	97,894	14.9 (12.3-17.6)
18-24	10,178	1.7 (0.4-3.3)	≥50,000	125,295	8.1 (7.1-9.1)
25-44	53,588	3.4 (2.4-4.3)	Education		
45-64	259,732	16.4 (14.8-18.3)	Less than High School	75,269	16.8 (13.3-20.2)
≥65	210,743	19.9 (18.1-21.7)	High School or Equivalent	172,994	11.9 (10.4-13.4)
Race			More than High School	289,744	10.1 (9.2-11.1)
White	440,978	11.1 (10.3-11.9)	Insurance Status		
African-American	80,172	15.4 (11.9-18.8)	Uninsured	39,454	5.8 (3.9-7.7)
Other	36,514	8.4 (5.8-11.1)	Insured	484,808	11.9 (11.1-12.8)
Sex					
Male	289,601	12.6 (11.3-13.8)			
Female	247,617	10.1 (9.1-11.1)			

*The number of adults in each subcategory may not add up to the total diagnosed number due to rounding and estimation methods.

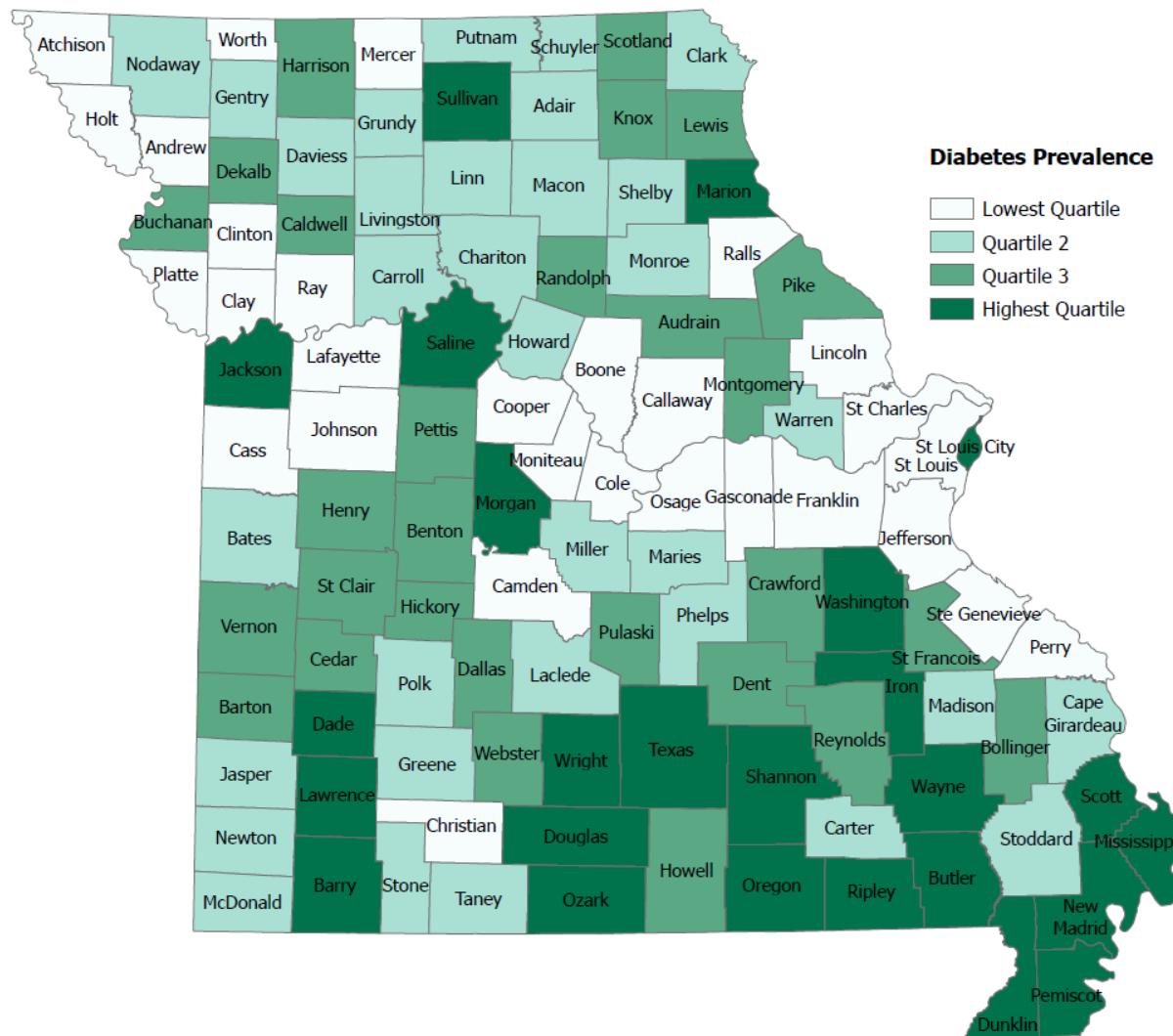
**CI: 95% Confidence interval

[#]Estimated based on the 2017-March 2020 National Health and Nutrition Examination Survey

Sources: Missouri Behavioral Risk Factor Surveillance System, 2021, MO DHSS, Bureau of Epidemiology and Vital Statistics

Map 1 shows the prevalence of diagnosed diabetes in 2019 varied across the state. Prevalence rates were highest in southcentral and southeast Missouri, whereas the lowest prevalence rates occur across the central and western part of the state. Jackson County (which encompasses the largest city in Missouri) and St. Louis City both had rates in the highest quartile.

Map 1. Prevalence of Diabetes in Missouri Counties, 2019



Source: CDC Behavioral Risk Factor Surveillance System (BRFSS) and the US Census Population Estimates Program, 2019

Diabetes Hospitalizations and Deaths

In 2020, visits where diabetes was the primary diagnosis decreased by over 5% for both emergency room (ER) and inpatient hospitalizations when compared to the previous year. A total of 14,702 ER visits and 14,733 inpatient hospitalizations were due to a primary diagnosis of diabetes. While slight, this is the first time in the past four years that there have been more inpatient hospitalizations than ER visits due to diabetes. However, these lower rates could also correlate to the COVID-19 pandemic. The 45-64 year old age group held the highest rate for ER visits (3.68 per 1,000 population), whereas the 65 and older age group had the highest rate for inpatient hospitalizations (38.27 per 10,000 population). Both of these age groups had rates that were significantly higher than the corresponding state rate. For both ER and inpatient hospitalizations, the under 15 year-old population had the lowest rates (0.78 and 4.04 respectively). There were 1,844 deaths due to diabetes in 2020, resulting in an age-adjusted rate of 23.1 per 100,000 population. While death totals have slightly increased from 2019, diabetes has fallen in rank

to the ninth leading cause of death for 2020, compared to 2019 when diabetes ranked seventh. The 65 and older population had the highest death rate (120.8) at 1,316 deaths.

Table 2. Diabetes Emergency Room Visit, Inpatient Hospitalization, and Death Rates, Missouri, 2020

	Emergency Room Visits			Hospitalization			Death		
	Count	Rate per	95% CI	Count	Rate per	95% CI	Count	Rate per	95% CI
		1,000			10,000			100,000	
Total	14,702	2.30	(2.26-2.34)	14,733	21.95	(21.58-22.32)	1,844	23.1	(22.0-24.1)
Age Group									
Less than 15	886	0.78	(0.73-0.83)	459	4.04	(3.68-4.42)	5	0.44*	(0.1-1.0)
15-24	1,498	1.89	(1.79-1.99)	1,165	14.70	(13.85-15.54)	#	#	##
25-44	3,515	2.22	(2.14-2.29)	3,192	20.12	(19.42-20.81)	78	4.9	(3.9-6.1)
45-64	5,683	3.68	(3.58-3.77)	5,731	37.08	(36.12-38.04)	443	28.7	(26.1-31.5)
65+	3,118	2.86	(2.76-2.96)	4,170	38.27	(37.11-39.43)	1,316	120.8	(114.2-127.3)
Race									
White	10,529	1.93	(1.90-1.97)	10,450	18.00	(17.64-18.37)	1,522	21.4	(20.3-22.4)
African-American	3,474	4.74	(4.59-4.90)	3,668	49.36	(47.80-50.92)	291	40.2	(35.7-45.1)
Sex									
Male	7,385	2.36	(2.30-2.41)	8,252	25.40	(24.84-25.97)	1,053	29.7	(27.9-31.2)
Female	7,315	2.25	(2.20-2.30)	6,465	18.85	(18.37-19.33)	791	17.5	(16.2-18.7)

*Rate is unreliable; numerator is less than 20 events

Records with missing demographic information were not included to calculate age-adjusted rates, therefore the totals will not exactly line up with the demographic breakouts.

Emergency Room Visit totals had two records with missing demographic information.

Hospitalization totals had 16 records with missing demographic information.

2020 Patient Abstract System data is still provisional and subject to change.

Sources: Missouri Patient Abstract System, Missouri Vital Statistics Death File

Diabetes Disparities in Missouri

Black/African American Missourians had higher rates for diabetes for both ER visits (4.74) and inpatient hospitalizations (49.36) than white Missourians. African-Americans also had a death rate (40.2) that was almost double the rate of the white population (21.4) for diabetes deaths in 2020. Diabetes rates for Black/African Americans were statistically significantly higher than the white rate for all three categories (ER visits, inpatient hospitalizations, and death).

Prevalence amongst adults living in households with a combined income of \$25,000 or less was nearly twice that of those living in a household with a combined income greater than \$50,000.

When comparing genders for ER visits, male and female diabetes counts were almost about equal for 2020, with rates that were not significantly different. However, for both inpatient hospitalizations and deaths, males had significantly higher rates than females.

The Cost of Diabetes in Missouri

The economic impact report from the American Diabetes Association (ADA) estimated the total amount of direct medical costs and indirect costs of diabetes in Missouri to be \$6.7 billion in 2017.³ The annual burden associated with diagnosed diabetes among all ages averaged \$13,240 per case. As for

undiagnosed diabetes, the economic burden in 2017 reached \$31.7 billion, which averaged to \$4,250 per case.⁴ The ADA estimates that many diabetes management interventions and screenings are cost-effective. Screening every 3 years beginning at age 45 for those without diabetes had strong evidence of being very cost-effective compared to no screening at all.⁵ As for type 2 diabetes management, studies found self-monitoring blood sugar three times per day compared to only once per day is very cost-effective, at \$3,719 per Quality-Adjusted Life Year (QALY).⁵ In conclusion, most of the type 2 diabetes prevention interventions included in the 2020 review were either cost-effective or cost-saving.⁶

For additional data regarding diabetes risk factors, preventive care practices, complications, and more, visit the Missouri Diabetes Profile <https://healthapps.dhss.mo.gov/MoPhims/ProfileBuilder?pc=7>.

Part 2 – Current Diabetes Initiatives in Missouri

MO HealthNet Division (MHD) Programs

1. Primary Care Health Home (PCHH) Program

Missouri formally approved the Primary Care Health Home State Plan Amendment on December 23, 2011. Services began January 1, 2012. In July 2011, Department of Social Services, MO HealthNet Division (MHD) solicited applications from primary care providers interested in participating in the PCHH initiative. The PCHH program began with 24 primary care health home organizations operating health homes in 86 sites throughout Missouri. After four additional open enrollment periods, there are currently 43 PCHH provider organizations with a total of 204 clinic sites providing health home services to more than 40,000 individuals.

The populations eligible for the PCHH Program originally included those with two or more chronic conditions or one chronic condition and a risk factor for a second. Patients with diabetes have one chronic condition and are at risk for a second. Pediatric asthma and obesity (in order to prevent full-blown type 2 diabetes) are also now included as stand-alone qualifying conditions. Anxiety, depression, chronic pain and substance use disorder now qualify as conditions that require a second qualifying condition or risk factor for enrollment.

Current enrollment in the PCHH is exceeding 40,000 a year and is steadily increasing due to recent Medicaid Expansion. An average of 34% of all people enrolled have a diagnosis of diabetes and 56% of all participants have obesity based on their height and weight. The nurse care managers, behavioral health consultants, and primary care providers work with each participant to create an individualized patient-driven care plan that includes small steps to achieve attainable goals. This program first addresses the social determinants of health and the patients' overall well-being to manage stress and other challenges. According to Healthy People 2030, "social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. They can be grouped into 5 domains: economic stability, education access and quality, health care access and quality, neighborhood and build environment, and social and community context."⁷

Yearly, the health home staff receive supplementary funding to contribute to essential educational items that participants may not be able to afford on their own. Items purchased include large blood pressure cuffs, low-carbohydrate food pantry items, daily pill boxes, dental kits, diabetes foot care kits, diabetes meal planner plates, glucometers, health alert bracelets, lancets, measuring cups, pedometers, scales, test strips, and extra wound care dressings. The additional funding is also used to allow for extra educational time with a diabetes educator, registered dietitian, pharmacist, or a community health worker (CHW) that works closely with participants

and their caregivers in their homes with medication support, meal planning, and hands-on cooking lessons. The Health Home staff also used the funding to attend trainings to become Certified Diabetes Care and Education Specialists and National Diabetes Prevention Program Lifestyle Coaches.

The participants in the Health Home Program with high blood glucose levels are encouraged to call the nurse care manager daily with their readings and meet with their provider monthly until their levels improve. With the additional new MO HealthNet pharmacy benefit of providing participants with continuous glucose monitors (CGMs), participants are able to self-manage their blood sugars easily and painlessly which has resulted in dramatic reductions in A1cs and weight. Participants relay they have reduced their intake of sugary snacks and drinks when monitoring their blood sugar. Nurses reported that patients no longer seek the nearest emergency room department or urgent care, when they are not feeling well. Instead, the patient can effortlessly report the CGM readings, so the nurse care manager can provide telephonic help. This potentially avoids unnecessary ER and office visits. Patient satisfaction increases with the CGM support along with reported improved health outcomes. The registered nurse care managers send achievement certificates when participants meet their individualized goals and are successfully managing their diabetes. Nurses keep participants engaged and motivated by trying innovations such as Facebook Live Cooking Shows, Zumba and Tai Chi classes, and providing fresh fruits, herbs, and vegetables through gardens or onsite chronic disease-specific food pantries.

Clinical outcomes achieved thus far include, but are not limited to, clinically significant improvements in LDL levels, blood pressure, and hemoglobin A1c (HbA1C) levels. The decreases in LDL translate to a 20% decrease in coronary heart disease; the decreases in blood pressure translate to a 16% decrease in coronary heart disease and a 42% decrease in stroke; and the decreases in HbA1c translate to a 21% decrease in diabetes mellitus related deaths, a 14% decrease in myocardial infarction, and a 37% decrease in microvascular complications respectively in the impacted population⁸. In 2021, of the people with a first reading of HbA1c greater than nine (the blood sugar level that begins to adversely affect multiple vital organs in the human body) 59.5% of participants saw significant improvement in their HbA1c after 12 months in the PCHH program. Often those participants with diabetes also have uncontrolled hypertension. Of those with high blood pressure, 86.3% saw significant improvements in their blood pressure readings. The PCHH program has also demonstrated reductions in emergency department use and hospital admissions, as well as shown associated cost savings in hospitalizations and pharmacy waste/use.

The MHD program staff work with the Missouri Primary Care Association's (MPCA) Practice Transformation Coaches to provide multiple trainings and provider bulletins throughout the year for health care teams to accelerate positive outcomes for patients with diabetes. Trainings include *“Diabetes, Stress, and SDOH”*, *“Trauma-Informed Methods for Primary Care”*, *“Motivational Interviewing for Preventative Care”*, and *“The 8 Dimensions of Wellness”* to support all aspects of their patients' lives. The PCHH providers network with other health care teams to improve their own workflows and learn about new and tested diabetes interventions.

MHD also currently provides funding for over 80 CHWs in 29 community health centers (CHCs) across Missouri to assist high risk, medically complex individuals with managing their healthcare and addressing needs related to social determinants of health. The addition of these services came as a result of the CHW pilot in southwest Missouri that showed greater reductions in emergency department visits for individuals enrolled in PCHH who had access to a CHW compared to those that did not (38% decrease compared to 8% decrease). The pilot also showed greater reductions in hospitalizations (16.6% decrease for individuals with a CHW compared to 6% decrease in individuals who did not have access to a CHW).

MHD will continue to support Great Mines Health Center (GMHC) through FY23 for the CHW High Utilizer pilot program. GMHC collaborated with Washington County Ambulance District (WCAD) and designed their pilot program to avoid unnecessary transports and reduce the number of clients with uncontrolled diabetes. CHWs are working jointly with WCAD to help lower emergency department visit rates, provide resources, and educate the population with uncontrolled diabetes within Washington County. Through this program, chronic care patients do not need to leave their homes, allowing for better compliance. In-home appointments through this partnership are scheduled and tracked through GMHC's Electronic Medical Record (EMR).

2. Managed Care and Disease Management

The managed care plans provide care management and/or disease management services to select members as outlined below. Members are evaluated by the health plans to determine eligibility for these services.

Care management services focus on enhancing and coordinating a member's care across an episode or continuum of care; negotiating, procuring, and coordinating services and resources needed by members/families with complex issues; ensuring and facilitating the achievement of quality, clinical, and cost outcomes; intervening at key points for individual members; addressing and resolving patterns of issues that have negative quality cost impact; and creating opportunities and systems to enhance outcomes. The health plans may use Section 2703 designated health home providers or Local Community Care Coordination Program (LCCCP) providers to perform care management functions if the health home practice and LCCCP provider are members of the health plan network.

Disease management involves the intensive management of a particular disease or syndrome. Disease management encompasses all settings of care and places a heavy emphasis on prevention and maintenance. It is similar to care management, but more focused on a defined set of programs relative to an illness or syndrome.⁹ The health plans provide disease management programs for major depression, asthma, and at least one of the following: obesity, diabetes, hypertension, or attention deficit hyperactivity disorder (ADHD). The health plan may use Section 2703 designated health home providers to perform disease management functions if the health home practice is a member of the health plan network.

The health plans also develop and provide a Local Community Care Coordination Program (LCCCP) using a delivery model of choice that provides care management, care coordination, and disease management with a local healthcare provider. All LCCCPs incorporate the following principles: all members will have a selected primary care provider; a physician-directed team collectively provides care for the member; care coordination across all aspects of health care; care management services; and recognition and referral to necessary community and social support resources.

In addition to the services listed in the comprehensive benefit package, the health plan provides specified services to children under 21 years of age and pregnant women with Medical Eligibility (ME) codes 18, 43, 44, 45, and 61. This includes diabetes self-management training for persons with gestational, type 1, or type 2 diabetes.

Healthcare Effectiveness Data and Information Set (HEDIS) data for calendar year 2021 for MHD managed care plans show a great deal of stability in comparison to 2019. The percentage of individuals with diabetes who had an HbA1c test was 81% in both years (as well as 2017), and the percentage of those having their HbA1c levels under control was 41% in 2021, vs. 40% in 2019. The rate of individuals with an HbA1c rate that is poorly controlled (>9.0) is also essentially unchanged at 50%, compared to 51% in 2019. The rate of individuals with controlled blood

pressure continues to show slight improvement, rising from 58% in 2017 to 61% in 2019, and most recently at 64% in 2021. In contrast to these relatively stable rates, the rate of individuals with diabetes receiving eye exams has shown some very large swings in the past several years, from 42% in 2017 to 65% in 2019, and most recently back down to 43% in 2021. It is possible that COVID intruded on patients' ability or willingness to obtain such exams.

In addition, MHD is reporting on two new HEDIS measures for diabetes. In 2021, the rate for persons with diabetes initiating statin treatment was 56%, and 56% of those initiated demonstrated adherence for the duration of the treatment period. The rate for persons with diabetes receiving a kidney health evaluation was 22% in 2021.

3. Home Telemonitoring, Wireless Patient Reminder Services Program, and Medication Therapy Management

Telemonitoring is a small contracted program for patients who meet specific criteria, including chronic diagnoses such as diabetes, and participants with a history of frequent hospital and/or emergency department visits. The contractor, CoxHealth at Home, supplies in-home monitors that collect patients' vital signs and other clinical information and relay the data electronically to a nursing station for analysis and oversight. When problems arise with a patient's blood glucose, blood pressure, weight, etc., the nursing staff can intervene and/or make a visit to the patient's home. If necessary, the nurse will direct the patient for medical treatment. The goal is to keep patients out of the hospital and/or emergency department. For state fiscal year 2022 there were an average of 60 participants per month enrolled in the telemonitoring program.

The Wireless Patient Reminder Services Program utilizes PageMinder as a contractor to provide wireless patient reminder notification services to individuals with chronic conditions, including diabetes. Notifications consist of reminders to take medications at scheduled times, to test blood sugar, etc. Goals include helping patients adhere to their treatment regimens so they can avoid unnecessary hospitalizations and emergency department visits. For state fiscal year 2022 there were an average of 545 participants per month enrolled in the Wireless Patient Reminder Services Program.

Medication Therapy Management (MTM) is for pharmacist professional services to educate and counsel patients about potential gaps in treatment. For example, a pharmacist will receive a notification that a patient using his or her pharmacy does not have a claim for an annual foot exam, or perhaps no laboratory claim to indicate that he or she had a regular HbA1c screen. The pharmacist will "reserve" an intervention opportunity and when the patient shows up in the pharmacy, the pharmacist counsels the patient about the need to adhere to evidence-based treatment protocols for their diabetes (among other disease states). The pharmacist must be properly qualified and enrolled to provide and bill MHD for these services. The Centers for Medicare and Medicaid Services (CMS) approved the MTM program effective January 1, 2013 and providers continue to enroll in the program to provide interventions.

Table 3 provides MTM usage and cost savings data collected from 2016-2022. All included patients have a diagnosis of diabetes according to paid medical claims history. While the number of patients with MTM interventions is relatively low, the pharmacy and medical cost savings are significant.

Table 3. Medication Therapy Management (MTM) Usage and Cost Savings, Missouri, 2016-2022

	Unique Patients with Diabetes	Number of Patients with MTM Interventions	Number of MTM Interventions Provided for these 29 Patients	Pharmacy Savings for these 29 Patients (Annualized)	Medical Savings for these 29 Patients (Annualized)
11/1/16-10/31/17	66,701	17	38	\$ 7,885.00	\$ 97,370.00
10/01/20-09/30/21	66,866	25	57	\$ 10,126.00	\$ 124,290.00
10/01/21-09/30/22	66,141	29	63	\$ 11,579.00	\$ 156,118.00

4. Pharmacy Benefit

On April 1, 2020 MHD bought continuous glucose monitors under the pharmacy benefit, allowing participants to receive these devices at the pharmacy with a simple prior authorization. These devices allow participants, and their caregivers, to monitor blood sugar levels without multiple finger sticks. Participants place the device and receive alerts and readings on their smartphone, smart watch, or manufacturer device. Since implementing coverage, MHD has paid for over 1,700 continuous glucose monitors.

In 2021, MHD purchased tubeless insulin pumps under the pharmacy benefit, allowing participants to receive these devices at the pharmacy with a simple prior authorization. These devices are able to deliver insulin to participants and adjust the dose according to what the participant is doing, allowing them to play basketball, swim, and shower, without having to worry about insulin delivery. Combined with the continuous glucose monitor, participants are able to better control their diabetes, leading to improved long term outcomes. Since implementing coverage over 100 participants are receiving tubeless insulin pumps monthly through MHD.

5. Biopsychosocial Treatment of Obesity for Youth and Adults

MHD began implementation for coverage of biopsychosocial treatment of obesity for youth and adult participants September 1, 2021 with the MO HealthNet Fee-for-Service population and full implementation with the managed care population occurred on July 1, 2022. Youth services are available for eligible participants 20 years of age and younger while adult services are available for those 21 years of age and older. These services are consistent with recommendations from the United States Preventive Services Task Force (USPSTF). The goal of these services is to improve health outcomes for youth and adult populations by promoting improvements in weight status and reducing the incidence of comorbid conditions, such as diabetes, by focusing on the integration of medical nutrition therapy and behavioral health counseling services to facilitate behavior changes.

6. Diabetes Prevention Services

MHD implemented coverage for diabetes prevention program services for adult participants on September 1, 2020. Services are available for eligible participants ages 21 and older with the goal of preventing the progression to type 2 diabetes and improve health outcomes for high-risk adults by managing obesity and associated co-morbidities. A physician and/or other licensed practitioner recommends services focusing on structured interventions that include behavioral counseling concentrating on weight reduction and lifestyle changes. The National Diabetes Prevention Program (National DPP) is one such program.

Missouri Department of Health and Senior Services (DHSS) Programs

Missouri's diabetes activities are coordinated within DHSS by the Diabetes and Heart Disease Program, within the Bureau of Cancer and Chronic Disease Control. The Centers for Disease Control and Prevention (CDC) provides the majority of the program's funding. Fiscal year 2023 marks the fifth year of the five year 1815 Cooperative Agreement: Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke, as well as the 1817 Cooperative Agreement: Diabetes and Heart Disease and Stroke Prevention Programs – Innovative State and Local Public Health Strategies to Prevent and Manage Diabetes and Heart Disease and Stroke.

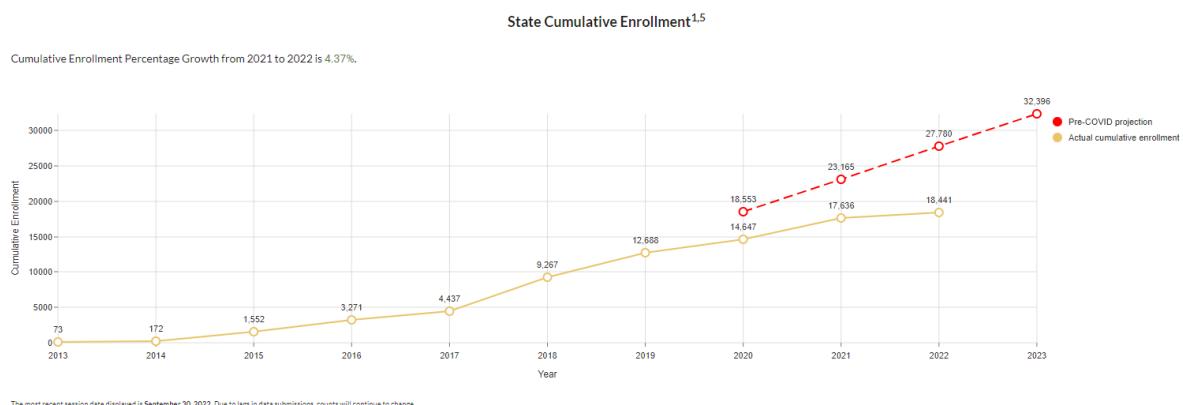
1. National Diabetes Prevention Program (National DPP)

The number of Americans with prediabetes has continued to rise to 96 million. More than 80% of these individuals do not know that they have prediabetes. Without action, many of these individuals will develop type 2 diabetes within five years, placing them at increased risk of heart attack, stroke, blindness, kidney failure, and lower limb amputations.¹⁰

The National DPP is a CDC-developed evidence-based lifestyle change program for preventing or delaying the onset of type 2 diabetes. National Institutes of Health research has shown that individuals with prediabetes that take part in a CDC-recognized lifestyle change program decrease their risk of developing type 2 diabetes by 58% (71% for people over 60 years old).¹¹

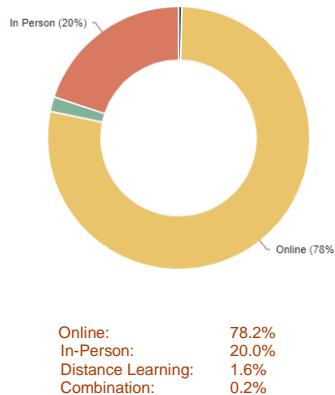
As of November 1, 2022, the number of CDC-recognized National DPP suppliers in Missouri has increased to 27.¹² Cumulative program enrollment from 2013 to September 30, 2022 is 18,441 participants (Graph 1). While the COVID-19 pandemic forced many programs to pause program delivery, enrollment continued to rise in Missouri. This is due, in part, to many in-person programs quickly shifting to online or distance learning models (Graph 2).

Graph 1. Missouri National Diabetes Prevention Program Enrollment, 2013-2022



Graph 2. Missouri National Diabetes Prevention Program Enrollment by Delivery Mode, 2013-2022

State Enrollment By Delivery Mode¹



1. CDC DPRP Data.

Of the 27 CDC-recognized program suppliers, as of November 1, 2022 six organizations have achieved Medicare Diabetes Prevention Program (MDPP) supplier status, allowing them to bill Medicare for program services.¹³ The 2022 CMS Physician Fee Schedule adjusted the National DPP reimbursement rates to increase milestone reimbursements in the first year of program delivery. This increase will help sustain MDPP program delivery and potentially increase the number of MDPP suppliers in the state.

Missouri Medicaid began coverage of the National DPP on September 1, 2020. Through November 1, 2022, five National DPP program suppliers have credentialed with MHD to bill for these services. The Medicaid Beneficiary Enrollment Project Grant from the National Association of Chronic Disease Directors (NACDD) laid the groundwork to enroll eight Medicaid beneficiaries as program participants so far. A second year renewal of this project through July 2023 will increase enrollments even further, while also providing resources and program supports to address social determinants of health and retain participants in the program.

To enhance the ability of National DPP suppliers to submit claims billing to Medicare, Medicaid, and other private insurers, DHSS has worked with partner, HabitNu, to create the Missouri Network of National DPPs. Under the umbrella of HabitNu, National DPP suppliers are able to access virtual program delivery tools, a participant-facing app, coach's dashboard, DPRP data reports, and a claims billing dashboard. So far, HabitNu has recruited eight organizations to join the Network and has begun submitting claims for National DPP services on their behalf. HabitNu is also working to become a credentialed provider with the three Medicaid Managed Care Organizations (MCOs) in Missouri.

Employer coverage of the National DPP is another important strategy to reduce diabetes rates and employer health care costs. The National DPP program allows employers to avoid the high cost of type 2 diabetes by delaying or preventing the onset of the disease. The program provides both direct financial benefits (in the form of lower health care costs) as well as indirect financial benefits (such as increased productivity and satisfaction among employees). One study of commercially insured adults found an \$8,015 increase in medical expenditures over a three-year period for individuals with prediabetes who later developed diabetes compared to those that did not.¹⁴

The Diabetes and Heart Disease Program is currently participating in NACDD's National DPP Employer Learning Collaborative, which provides technical assistance around engaging employers in National DPP coverage. Partnerships with the St. Louis Area Business Health Coalition and the Mid-America Coalition on Health Care continue to provide opportunities to build awareness with employers of the potential cost savings of diabetes prevention. The opportunity still exists for Missouri Consolidated Health Care Plan to provide the National DPP as a covered benefit to all Missouri state employees. Such coverage could lead to significant savings in state employee health care costs.

DHSS continues to support the "Take It Back" prediabetes awareness media campaign that began several years ago in the St. Louis and Kansas City markets and includes a multi-platform campaign across TV, print, Facebook, Instagram, and YouTube. The fiscal year 2022 campaign created 1,949,805 measurable impressions, with 761,367 video views, and 5,709 click throughs to the Missouri Reverse Your Risk website: www.reverseyourrisk.com.

Finally, the Diabetes and Heart Disease Program continues to advance the National DPP in the following additional activities:

- Providing technical assistance to program suppliers as needed.
- Hosting an annual program supplier meeting.
- Connecting lifestyle coaches across the state in monthly collaborative calls to network and share best practices.
- Creating referral pathways for health care providers to refer patients to programs.
- Assisting in the coordination of the activities of the Missouri Diabetes Shared Learning Network.
- Providing Lifestyle Coach Certification Training and Advanced Lifestyle Coach Training opportunities.

2. Diabetes Self-Management Education and Support (DSMES) / Diabetes Self-Management Training (DSMT)

DSMES is an evidence-based model to provide education to individuals diagnosed with diabetes. Organizations offering DSMES services can apply for recognition by the American Diabetes Association (ADA) or for accreditation by the Association of Diabetes Care and Education Specialists (ADCES). DSMT (CMS uses the term training instead of education and support) services are eligible for reimbursement by Medicare, Medicaid, and many private health plans.

The Diabetes and Heart Disease Program improves access to and participation in DSMES/DSMT programs in underserved areas by supplying funding to complete the recognition/accreditation process, coordinating partners to increase program referrals, and providing training opportunities for program delivery staff. At the end of 2021, there were 57 DSMES/DSMT programs in Missouri, with 15,830 total patient encounters. This represents a decrease of 15 programs compared to the end of 2020, attributed to multiple Schnucks pharmacy locations no longer delivering the program since sold to CVS.

In fiscal year 2022, DHSS contracted with G.L.O. and Associates to complete a statewide assessment of DSMES/T programs. A total of 32 DSMES sites completed the survey (56% response rate), representing programs based in hospitals, pharmacies, federally qualified health centers (FQHCs), and local public health departments. By identifying the most prominent challenges DSMES programs are experiencing, DHSS can focus on activities to resolve these moving forward. The most prominent challenges reported included:

- Staffing/Location - Staff redirected to focus only on COVID-19 response efforts, availability of space to hold programs.
- Participant issues - COVID-19, lack of internet for telehealth sessions, lack of transportation and childcare, disinterest or lack of engagement.
- Billing challenges - lack of dedicated billing staff, lack of clarity of DSMES billing requirements, insufficient reimbursement for services provided.
- Referral/Marketing challenges – lack of referrals from health care providers, inadequate marketing, and lack of resources (time or money) for marketing.
- Accreditation/Re-accreditation process – time consuming, difficulty tracking data requirements.

DHSS continues contracting with the Missouri Pharmacy Association (MPA) to recruit and train 10 new DSMES pharmacy sites per year. MPA then provides technical assistance and training opportunities on an on-going basis. This includes assisting pharmacies with DSMES accreditation/reaccreditation, enrolling as providers with MHD for Medicaid reimbursement, and implementing DSMES billing standards and processes.

3. Establishing Referral Systems for Clinic-to-Community Linkages

The Community e-Connect Project, led by NACDD, establishes bi-directional e-referrals between health care clinics and lifestyle change programs. Currently, Ozarks Health Center is utilizing the Community e-Connect platform to refer patients to Hickory County Health Department's National DPP program. Both organizations have created workflow processes and trained staff on the use of the platform. NACDD will be monitoring the referrals and providing ongoing technical support.

MPCA continues to utilize the Data Repository and Visualization System (DRVS, pronounced Drives) to identify patients with prediabetes based on their medical records and refer them into National DPP programs.

The Diabetes and Heart Disease Program continues to examine ways to support the Unite Us and Findhelp platforms in order to increase clinic-to-community e-referrals for both diabetes prevention and management programs, as well as for social determinants of health needs. Several National DPP suppliers have connected with Unite Us to list their programs in their network directory, making it possible for health care providers to search for and refer to local programs. HabitNu and Unite Us are integrating with a single sign-on so that National DPP suppliers can easily utilize the Unite Us platform to refer participants to outside organizations to meet their social determinant of health needs.

4. 1817 Alliance and Bright Spot Initiative

In late 2018, Missouri received the 1817 Cooperative Agreement - Diabetes and Heart Disease and Stroke Prevention Programs - Innovative State and Local Public Health Strategies to Prevent and Manage Diabetes and Heart Disease and Stroke. A collaboration of six public health and medical care organizations created the Alliance, seeking to improve the lives of people living in the St. Louis Metropolitan area, specifically those affected by diabetes and cardiovascular disease. By focusing on designing, testing, and evaluating innovative approaches towards reducing health disparities and the burden of chronic disease, the Alliance optimizes health and race equity across the region. Because the social determinants of health and trauma-informed care are essential factors in the path towards achieving equity, the Alliance is committed to infusing all program activities with a race equity, health equity, and trauma-informed lens.

The Alliance implements 16 strategies within the St. Louis Promise Zone, an area that includes parts of North St. Louis City and North St. Louis County. Designated in 2015, this federal program intended to increase economic activity, improve educational outcomes, reduce serious and violent crime, invest in transformative development, and improve health and wellness in high-poverty urban, rural, and tribal communities. Through coordinated innovations, the Alliance aims to (1) improve and increase referrals to evidence-based prevention and self-management lifestyle change programs; (2) increase use of CHWs; (3) utilize the application of telehealth and mobile tools; and (4) increase identification of at-risk patients by community health centers. Strategies to achieve these goals include promoting team-based care, enhancing the role of pharmacists, coordinating referrals to nationally recognized prevention and management programs, expanding data-driven quality improvement at community health centers, and advocating for health plan coverage.

This work leverages a well-established network of local, state, and national collaborators. The six core members of the Alliance Leadership Team are DHSS, St. Louis Integrated Health Network, St. Louis County Department of Public Health, St. Louis City Department of Health, Missouri Primary Care Association (MPCA), and the Missouri Pharmacy Association (MPA). Additional partners include the Prevention Research Center of St. Louis (PRC), Regional Diabetes Planning Group, the St. Louis Area Hospitals Diabetes Collaboration, the Gateway Region YMCA, the St. Louis Metro Market, Operation Food Search, and Fit and Food Connection.

Contracts exist between partners within the Promise Zone region to increase patient referrals to diabetes prevention and management programs, blood pressure monitoring programs, and other nutrition and physical activity programs. One example of this involves health centers within the Promise Zone region referring patients with prediabetes to the Gateway Region YMCA for the YMCA's Diabetes Prevention Program (a CDC-Recognized National DPP). Because of this partnership, there has been an increase in program referrals as well as program enrollments at this site. Once the COVID-19 pandemic hit, the Gateway Region YMCA was able to successfully transition from in-person program delivery to virtual programming. Along with the St. Louis County Department of Public Health, DHSS assisted in collaborating with a technology platform vendor, HabitNu, to continue providing program services for clients via a virtual platform.

Through this project, several pharmacies in the region are now referring clients to diabetes management and other chronic disease programs and are providing education on management of medication. There are now six core pharmacies participating and referring clients from federally qualified health care systems and the local health department to both in-person and virtual National DPP and DSMES programs.

The 1817 grant work also includes the City of St. Louis and the St. Louis Metro Market collaboration. These two organizations are working together to bring healthy foods to the health centers in the region by scheduling mobile food units for clients with diabetes or hypertension. Fit and Food Connection then conducts in-person and virtual grocery store tours as well as cooking classes for clients.

Finally, the CHWs in the participating health centers are collaborating with neighborhood organizations to provide outreach in the community. The CHWs are collaborating with local churches, pharmacies, grocery stores, and schools to educate families on diabetes prevention and management, and to provide healthy cooking class referrals.

Recently, NACDD awarded DHSS new funding related to their National DPP Bright Spot Initiative. The objective of the project is to dramatically increase enrollment in the National DPP and MDPP and to promote health equity for priority populations at risk for developing type 2

diabetes. DHSS is utilizing collective impact strategies to build upon the groundwork laid by the 1817 Alliance to add new partners and enhance existing referral networks.

5. Chronic Disease Collaborative

MPCA's Chronic Disease Collaborative continues to assist community health centers (CHCs) in improving the quality of care of Missourians with chronic disease by measuring quality improvement efforts and supporting team based care.

Currently 15 out of Missouri's 29 CHCs are participating in the Chronic Disease Collaborative. These clinics create and share quarterly Quality Improvement Plans with the Diabetes and Heart Disease Program to address at least one chronic disease measure. There are 12 clinics currently focused on improving diabetes through the following metrics:

- Reducing uncontrolled HbA1c (>9%).
- Increasing the number of people with diabetes who have controlled blood pressure (<140-90).
- Increasing the number of people with diabetes who have measured and controlled cholesterol.
- Increasing the number of people with diabetes who receive an annual eye exam.
- Increasing the number of people with diabetes who have a foot exam.
- Increasing the number of people with diabetes who have a kidney screening.

Two of the CHCs currently participating in the Chronic Disease Collaborative report 86 referrals into diabetes prevention and management programs over a one-year period of July 2021 through June 2022.

6. Pharmacist Integration

MPA recently engaged a cohort of 15 pharmacies, over a 12-month timeframe, in the EngageDr virtual coursework to enhance Medication Therapy Management (MTM) interventions and services in order to support them in moving towards Chronic Care Management (CCM). This is a more proactive approach to patient care and requires increased collaboration with other members of the health care team including the patient's primary care physician.

The Avant Institute's EngageDr course provides pharmacy teams seeking to change how pharmacists and medical providers provide care to patients with a sustainable business model in value-based care. The course offers an intensive immersion experience that includes an in-depth course in pharmacist-led collaborative clinical services and practice sessions with real patient cases and clinic scenarios.

Participants gain an in-depth understanding of contract proposals, business planning, strategic assessments (of both the medical practice and the pharmacy), collaborative practice agreements, medical provider collaborative clinical services, and the direct impact of a pharmacist's clinical activities on quality measures.

MPA also worked with L&S Pharmacy and CEimpact, to develop a 16-week virtual course for pharmacy technicians to become credentialed CHWs. Three cohorts will run through the end of 2022.

The Community Pharmacy Enhanced Services Network of Missouri (CPESN MO) has increased to 128 pharmacies across the state. This network of pharmacies has grouped together to expand and enhance patient care and clinical services offered, share best practices, and increase access

to health care for their communities. CPESN MO has supported pharmacist integration efforts through recruitment of high-achieving community pharmacies to participate and share best practices during research and development, implementation, and successful sustainability.

The Pharmacist-to-Pharmacist Electronic Health Record (EHR) Pilot creates an opportunity for clinic-based and community-based pharmacists to share medication records, intervention opportunities, and recommendations related to care through the shared EHR system or documented phone calls.

7. Community Health Workers (CHWs)

In order to become a credentialed CHW, an individual must complete the CHW certificate course at a certified curriculum provider, an application, and a background check. Credentialed CHWs must complete 20 hours of continuing education units every two years, with six of those hours being ethics.

The CHW program began as a pilot project implemented in Kansas City, St. Louis, Springfield, and Bootheel areas. It has since spread throughout Missouri. There are currently CHW certificate programs offered in Kansas City, St. Louis, Sedalia, Moberly, Springfield, Neosho, Charleston, Cape Girardeau, Poplar Bluff, and Potosi.

Upon completion of the course and receiving certification, CHWs work in health care settings, local public health agencies, or community organizations assisting medical professionals with improving health outcomes for individuals. CHWs accomplish this through the provision of services such as working with individuals to identify barriers that prevent compliance with treatment recommendations, assisting in linking community members to medical care and a range of social services, and serving as a liaison with clinical and administrative staff by providing information on cultural issues affecting health.

As CHWs complete the curriculum, there is a need for continuing education. Therefore, the Missouri Telehealth Network worked collaboratively to create a CHW ECHO (Extension of Community Healthcare Outcomes) virtual learning network. The CHW ECHO sessions occur the first and third Tuesday of the month for one hour. A panel of experts, comprised of a facilitator, community college instructor, behavioral health/CHW supervisor, nurse manager, community resource staff, health literacy staff, and a CHW are on each CHW ECHO. Each session includes a short lecture followed by a presentation of a difficult case. Attendees share information on resources that may be relevant to the case.

The Regional Kansas City CHW Collaborative, which includes Kansas City Metro Community College, health care providers, community organizations, as well as local, state and federal government, meets monthly to obtain feedback from individuals on the CHW project. Four subcommittees (Executive, Advocacy, Capacity and Sustainability) facilitate the work of the Collaborative. To avoid duplication of effort, Diabetes and Heart Disease Program staff from DHSS participate in the monthly Collaborative meetings, as well as the Executive and Capacity Subcommittees. Lessons learned will improve the process for developing a statewide program.

The St. Louis Integrated Health Network has taken the lead on facilitating a CHW Collaborative within the St. Louis region. Participants from local public health agencies, community health centers, hospitals, higher educational institutions, housing developments, community organizations, and statewide organizations meet bi-monthly. On behalf of the Collaborative, the Integrated Health Network received funding from a private foundation to implement a work plan to further integrate CHWs into the St. Louis region.

A Statewide CHW Advisory Committee provides recommendations to DHSS on CHW infrastructure needs. Membership includes state and local agencies, higher education institutions, health care systems, statewide organizations, CHW employers, and CHWs. The Advisory Committee has approved core competencies, objectives, and code of ethics recommendations. The advisory committee also approved a credentialing process for individual credentialing and a certification process for curriculum providers.

8. Diabetes in Schools

Diabetes (type 1 or type 2) affects about 208,000 people or 0.25% of everyone younger than 20 years in the United States. In Missouri, school nurses report 2,576 students with diabetes (type 1 or type 2). This number represents reporting from 408 out of 518 public school districts in Missouri or 88% of the Missouri school population. The School Health Program focuses on professional development for school nurses and school staff to ensure that students with diabetes have the resources and support needed in school to manage their chronic health condition.

According to the literature, managing diabetes at school is most effective when there is a partnership among students, parents, school nurses, health care providers, teachers, counselors, coaches, transportation providers, food service employees, and administrators. Support may include helping a student take medications, checking blood sugar levels, choosing healthy foods in the cafeteria, or being physically active.

The School Health Program continues to support Missouri school nurses by:

- Sponsoring webinars on diabetes management for school nurses.
- Providing resources and professional development opportunities on diabetes management in the school setting at the annual Health Office Orientation for new staff.
- Collaborating with the Missouri State Board of Nursing to offer education on delegation of care in the school setting and to further explain Cade's Law, which includes legislative provisions affecting diabetes management in schools. A webinar, "Trained Diabetes Personnel in Missouri Schools" is posted on the Missouri Healthy Schools website: <http://www.mohealthschools.com/school-health-services.html>.
- Developing a "Rapid E-Learning Module" for school nurses to explain the updates to the *Helping the Student with Diabetes Succeed: A Guide for School Personnel* developed by the National Diabetes Education Program: <http://ccox.sites.truman.edu/2017/03/27/diabetes-elearning-module-for-mo-school-nurses-6/>.
- Posting CDC tools and information about diabetes on the school health website: <https://health.mo.gov/living/families/schoolhealth/index.php>.

Part 3 – Coordination between MHD and DHSS, Partners, and Stakeholders

MHD and DHSS Coordination

MHD and the Diabetes and Heart Disease Program at DHSS coordinate efforts on several projects. Areas of collaboration include epidemiologic and data analysis for the MHD population, MTM for diabetes, and coordination in the development and implementation of diabetes prevention services. Previously, MHD and DHSS jointly participated in an Affinity Work Group coordinated by CMS, with the goal of studying the practicality of and options for implementing the National DPP for MHD participants. This led to coverage of the National DPP by Missouri Medicaid. Currently, both organizations are participating in year two of

the Medicaid Beneficiary Enrollment Project, funded by the National Association of Chronic Disease Directors (NACDD), to increase enrollment and retention of Medicaid beneficiaries in the National DPP.

Additional collaboration exists to advance shared clinical and public health goals through MHD patient care and population health management opportunities, including: managed care plans' care management and disease management efforts; health home care coordination and management efforts; focusing on complex patients and coordination of activities with local community-based partners and services; exchanging data related to participants' care management and coordination; and evaluating processes for working more closely with providers and partners.

Missouri Diabetes Shared Learning Network

The Missouri Hospital Association's Diabetes Shared Learning Network continues to meet twice annually in an effort to develop and implement a statewide system for shared learning and collaboration among community, public health, health systems, and provider organizations to increase prevention and care coordination for people with diabetes. Recently the group developed a Health Education Workgroup and a Health Equity SDOH Workgroup. Multiple DHSS staff are serving on each workgroup. As of fall 2022, the Missouri Diabetes Council and the Diabetes Shared Learning Network combined efforts to align goals, objectives, and activities. The group will move forward as the Missouri Diabetes Shared Learning Network.

Part 4 – Action Plan

MHD Activities

In order to continue to impact diabetes and prediabetes in the MHD population, MHD proposes the following:

1. MHD began implementation of coverage for evidence-based, multicomponent weight reduction services supported by the USPSTF and the Children's Service Commission Subcommittee on Childhood Obesity in the fall of 2021 and fully implemented summer of 2022. According to the USPSTF, evidence shows the utilization of intensive, multicomponent behavioral interventions in adults with obesity and elevated plasma glucose levels leads to clinically significant improvement in weight and a reduction of type 2 diabetes. Research also shows that the harms of intensive, multicomponent behavioral interventions for adults are small to none, therefore USPSTF has concluded that these interventions have a moderate net benefit.¹⁵

MHD continues to collaborate with subject matter experts to ensure intensive behavioral therapy services for the treatment and management of obesity are in line with industry standards. Obesity increases the risk of diabetes and higher healthcare expenditures. These benefits will reduce the incidence of prediabetes and mitigate the morbidity related to diabetes and diabetes-related complications.

2. In addition, MHD implemented coverage for Diabetes Prevention Program Services based on national guidelines. MHD continues to work collaboratively with the Diabetes and Heart Disease Program to reflect CDC guidelines and best practices in current policy. This collaboration will continue, with a focus on increasing provider enrollment and participant utilization of these services.
3. Furthermore, MHD has completed its evaluation of adding CHWs as a provider for defined high-risk populations. The results of the evaluation showed a 38% reduction in emergency department

visits in individuals enrolled in PCHH that had access to a CHW as compared to an 8% reduction in individuals enrolled in a PCHH that did not have access to a CHW. The pilot also showed a 16.6% reduction in hospitalizations for individuals enrolled in a PCHH with access to a CHW as compared to a 6% decrease for individuals enrolled in a PCHH that did not have access to a CHW.

CHWs provide community-based care coordination and education to complement clinic and hospital care coordination. They assist individuals in the management of their diabetes and issues impacting their ability to manage their diabetes. CHWs improve diabetes management and follow-up, resulting in reduced morbidity and healthcare related costs. Examples of their activities include:

- Facilitating appointments (including providing transportation).
- Following up on appointments or other instructions by making home visits.
- Communicating with primary care providers about barriers to self-management noted during home visits.
- Assisting in obtaining social and/or community services for participants.
- Assisting with post-hospitalization or emergency department visit follow-up by attempting to track down participants that primary care staff have been unable to reach.
- Participating in primary care provider meetings when possible to help bridge the communication gap that may be present between patient and provider.

The National Community Health Advisor Study^{16, 17} includes seven basic roles for CHWs:

- Providing cultural mediation between communities and health and human services systems.
- Providing informal counseling and social support.
- Providing culturally appropriate health education.
- Advocating for individual and community needs.
- Ensuring that people obtain necessary services.
- Building individual and community capacity.
- Providing basic screening services.

According to the CDC, “Many interventions that integrate CHW services into health care delivery systems are associated with reductions in chronic illnesses, better medication adherence,¹⁸ increased patient involvement,¹⁹ improvements in overall community health,²⁰ and reduced health care costs.^{21, 22} One study of a CHW outreach program for underserved men found a return on investment ratio of more than \$2 for each dollar invested.²¹ Another study found an annual cost savings using CHWs of around \$2,000 per Medicaid patient with diabetes.²²

DHSS Activities

The Diabetes and Heart Disease Program's year five work plans for the 1815 and 1817 Grants from CDC are broken into two categories, Category A: Diabetes Management and Type 2 Diabetes Prevention Strategies and Category B: Cardiovascular Disease Prevention and Management Strategies. As can be readily seen, many activities cross-reference both categories. As these two grants are in their last year of funding, the Diabetes and Heart Disease Program anticipates applying for the next round of CDC funding: CDC-RFA-DP23-2320, A Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes.

CDC-RFA-DP18-1815PPHF18

Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke - Financed in part by 2018 Prevention and Public Health Funds (PPHF)

CATEGORY A: DIABETES MANAGEMENT AND TYPE 2 DIABETES PREVENTION STRATEGIES

Diabetes Management: Improve care and management of people with diabetes.

- A.1 Improve access to and participation in ADA-recognized/AADE-accredited DSMES programs in underserved areas.
- A.2 Increase engagement of pharmacists in the provision of medication management or DSMES for people with diabetes.

Type 2 Diabetes Prevention: Improve access to, participation in, and coverage for the National Diabetes Prevention Program (National DPP) lifestyle change program for people with prediabetes, particularly in underserved areas.

- A.3 Assist health care organizations in implementing systems to identify people with prediabetes and refer them to CDC-recognized lifestyle change programs for type 2 diabetes prevention.
- A.4 Collaborate with payers and relevant public and private sector organizations within the state to expand availability of the National DPP as a covered benefit for one or more of the following groups: Medicaid beneficiaries; state/public employees; employees of private sector organizations.
- A.5 Implement strategies to increase enrollment in CDC-recognized lifestyle change programs.

Diabetes Management and/or Type 2 Diabetes Prevention.

- A.6 Develop a statewide infrastructure to promote long-term sustainability/reimbursement for Community Health Workers (CHWs) as a means to establish or expand their use in a) CDC recognized lifestyle change programs for type 2 diabetes prevention and/or b) ADA recognized/AADE-accredited DSMES programs for diabetes management.

CATEGORY B: CARDIOVASCULAR DISEASE PREVENTION AND MANAGEMENT STRATEGIES

Track and Monitor Clinical Measures shown to improve healthcare quality and identify patients with hypertension.

- B.1 Promote the adoption of evidence-based quality measurement at the provider level (e.g., use dashboard measures to monitor healthcare disparities and implement activities to eliminate healthcare disparities).

Implement Team-Based Care for patients with high blood pressure and high blood cholesterol.

- B.2 Support engagement of non-physician team members (e.g., nurses, nurse practitioners, pharmacists, nutritionists, physical therapists, social workers) in hypertension and cholesterol management in clinical settings.

Link Community Resources and Clinical Services that support systematic referrals, self-management, and lifestyle change for patients with high blood pressure and high blood cholesterol.

- B.3 Develop a statewide infrastructure to promote sustainability for CHWs to promote management of hypertension and high blood cholesterol.
- B.4 Facilitate use of self-measured blood pressure monitoring (SMBP) with clinical support among adults with hypertension.

B5. Implement systems to facilitate systematic referral of adults with hypertension and/or high blood cholesterol to community programs/resources.

CDC-RFA-DP18-1817

Diabetes and Heart Disease & Stroke Prevention Programs - Innovative State and Local Public Health Strategies to Prevent and Manage Diabetes and Heart Disease and Stroke

CATEGORY A: DIABETES MANAGEMENT AND TYPE 2 DIABETES PREVENTION STRATEGIES

Type 2 Diabetes Prevention: Improve access to and participation and retention in the National Diabetes Prevention Program (National DPP) lifestyle change program for people with prediabetes.

- A.1 Implement systems to facilitate bi-directional e-referral between healthcare systems and CDC-recognized lifestyle change programs for type 2 diabetes prevention.
- A.2 Support organizations in increasing enrollment in existing CDC-recognized lifestyle change programs or establishing and sustaining new CDC recognized lifestyle change programs in underserved areas.
- A.3 Implement tailored communication/messaging to reach underserved populations at greatest risk for type 2 diabetes to increase awareness of prediabetes and the National DPP.
- A.4 Support advanced training for lifestyle coaches working at CDC-recognized lifestyle change programs to strengthen skills needed to engage and retain participants.

Diabetes Management and/or Type 2 Diabetes Prevention.

- A.5 Explore and test innovative ways to eliminate barriers to participation and retention in CDC-recognized lifestyle change programs for type 2 diabetes prevention and/or ADA-recognized/AADE-accredited diabetes self-management education and support (DSMES*) programs for diabetes management among high burden populations.
- A.6 Work with health care systems to establish or expand use of telehealth technology to increase access to one or more of the following programs/services in underserved areas:
 - ADA-recognized/AADE-accredited DSMES* programs for diabetes management
 - CDC-recognized lifestyle change programs for type 2 diabetes prevention
 - Diabetic retinopathy screening (using a non-mydriatic retinal camera at the screening site connected to a central reading center through telemedicine).

Diabetes Management: Improve care and management of people with diabetes.

- A.7 Increase adoption and use of clinical systems and care practices to improve health outcomes for people with diabetes (e.g., HIT/EHRs, clinical decision support tools, learning collaboratives to improve quality of care).
- A.8 Increase use of clinical decision support within the EHR to promote early detection of chronic kidney disease (CKD) in people with diabetes.

**These programs meet national quality standards and are more likely to be sustained long-term due to reimbursement by Medicare, many private insurance plans, and some State Medicaid Agencies.*

CATEGORY B: CARDIOVASCULAR DISEASE PREVENTION AND MANAGEMENT STRATEGIES

Track and Monitor Clinical Measures shown to improve healthcare quality and identify patients with high blood pressure and high blood cholesterol.

- B.1 Increase identification of patients with undiagnosed hypertension using EHRs/HIT.

B.2 Explore and test innovative ways to promote the adoption of evidence-based quality measurement at the provider level (e.g., use dashboard measures to monitor health outcomes among high burden subpopulations and implement related activities).

Implement Team-Based Care for patients with high blood pressure and high blood cholesterol.

B.3 Explore and test innovative ways to engage non-physician team members (e.g., nurses, nurse practitioners, pharmacists, nutritionists, physical therapists, social workers) in hypertension and cholesterol management in clinical settings.

B.4 Promote the adoption of MTM between community pharmacists and physicians for the purpose of managing high blood pressure, high blood cholesterol, and lifestyle modification.

Link Community Resources and Clinical Services that support bi-directional referrals, self-management, and lifestyle change for patients with high blood pressure, high blood cholesterol, and/or who have had a cardiac event.

B.5 Facilitate engagement of patient navigators/community health workers in hypertension and cholesterol management in clinical and community settings.

B.6 Implement systems to facilitate bi-directional referral between community programs/resources and healthcare systems (e.g. using EHRs, 800 numbers, 211 referral systems, etc.).

B.7 Explore and test innovative ways to expand use of telehealth including mobile health technology (e.g., smart apps, text messages) to promote management of hypertension and high blood cholesterol.

B.8 Explore and test innovative ways to enhance referral, participation, and adherence in cardiac rehabilitation programs in traditional and community settings, including home-based settings.

Part 5 – Budget Blueprint

In order to implement the proposed strategies, MHD and the Diabetes and Heart Disease Program anticipates pursuit of the following policy changes and budget considerations:

1. Diabetes Prevention and Management Programs

The Diabetes and Heart Disease Program will continue to support National DPP, DSMES and other evidence-based lifestyle change programs by collaborating with payers and relevant public and private sector organizations within the state to expand availability of these programs as a covered benefit for Medicare, Medicaid, state/public employees, and employees of private sector organizations. While Medicare and Medicaid coverage exists, the Medicaid MCOs need to engage with program suppliers to increase awareness of the benefit, increase program referrals and enrollments, and increase program retention. Future work will continue to encourage the Missouri Consolidated Health Care Plan, and other Missouri employers, to provide coverage for their insured populations. As stated earlier, evidence has proven coverage of the National DPP to be cost effective²³ with additional evidence to come.

2. Addition of CHWs as Providers

Based on pilot project findings, the annual estimated cost savings for individuals participating in the MHD CHW program will be ~\$1,476, realized within six months of a participant beginning the program.

Regarding future planning, the addition of CHWs to MHD programs (such as the PCHH Program for a defined high-risk population) would require the activation of certain Current Procedural Terminology (CPT) codes for billing. Activating these CPT codes would impact the MHD budget and would require additional appropriation authority. In addition to activating the CPT codes, MHD will need to define eligible participant populations, eligible provider credentials, identify which practices can add them, and fully evaluate the cost model.

The Diabetes and Heart Disease Program will continue to convene key stakeholders quarterly to support CHW work and advocate for establishing policies for reimbursement by third-party payers through a State Plan Amendment. Funding from the 1815 and 1817 cooperative agreements will cover training expenses (including books and supplies) for approximately 130 CHWs per year through spring 2023.

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